

## **Remarks**

Applicant and the undersigned would like to thank the Examiner for his efforts in the examination of this application. Reconsideration is respectfully requested.

### **I. Rejection of Claims 1-5 under 35 USC 112**

The Examiner has rejected Claims 1-5 under 35 USC 112, second paragraph, for indefiniteness.

Claims 1-4 have been amended to replace "characterized in that" with wherein.

Claim 2 has been amended to recite "a longitudinal length", and also to replace "that" with "a longitudinal length" (of the superconducting magnet).

Claim 3 has been amended to delete "(sewage side)" and "(clean water side)".

Claim 4 has been amended to replace "the magnetism-seeded" with "a magnetism-added". This amendment is believed to provide antecedent basis for both "the sorption agent" in Claim 4, second clause, and Claim 5.

Claim 5 has been amended to delete "based on a microorganism immobilization method".

### **II. Rejection of Claims 1-5 under 35 USC 102(b)**

The Examiner has rejected Claims 1-5 under 35 USC 102(b) as being anticipated by Windle (US 4,054,513).

Claim 1 has been amended to more particularly point out that which Applicants regard as their invention. Specifically, the magnetism is recited as being performed "by

sorption of the material to be separated to the sorption agent." This feature is neither taught nor suggested by Windle.

Further, Windle does not teach the attaching of the material to "magnetism-seeded porous material or activated carbon used as a sorption agent".

Therefore, for at least these reasons, Claim 1 is not anticipated by Windle.

Independent Claim 2 has also been amended to more particularly point out that which Applicants regard as their invention. Specifically, the "single-unit magnetic filters" are described as being "removably built up", which is neither taught nor suggested by Windle. This feature permits the filters to be sequentially removed for cleaning, for example, and then returned to the device.

Therefore, for at least these reasons, Claim 2, and thus dependent Claims 3-5, are not anticipated by Windle.

### **III. Rejection of Claims 1-5 under 35 USC 102(b)**

The Examiner has rejected Claims 1-5 under 35 USC 102(b) as being anticipated by JP 60-058216 A.

The amendments discussed above to independent Claims 1 and 2 also are believed to obviate the rejection over this reference, which does not teach "said magnetism adding means adds magnetism to the material by attaching the material to magnetism-seeded porous material or activated carbon used as a sorption agent by sorption of the material to be separated to the sorption agent", as recited in Claim 1. This reference further does not teach the recitations of Claim 2 of a "multiunit magnetic filter consisting of a plurality of single-unit magnetic filters that are removably built up",

again, permitting each of the single-unit magnetic filters to be sequentially removed, cleaned, and replaced.

Therefore, for at least these reasons, Claims 1 and 2, and thus dependent Claims 3-5, are not anticipated by JP 60-058216.

#### **IV. Rejection of Claims 1 and 2 under 35 USC 102(b)**

The Examiner has rejected Claims 1 and 2 under 35 USC 102(b) as being anticipated by JP 2003-001243 A.

The amendments discussed above to independent Claims 1 and 2 also are believed to obviate the rejection over this reference, which does not teach "said magnetism adding means adds magnetism to the material by attaching the material to magnetism-seeded porous material or activated carbon used as a sorption agent by sorption of the material to be separated to the sorption agent", as recited in Claim 1. This reference further does not teach the recitations of Claim 2 of a "multiunit magnetic filter consisting of a plurality of single-unit magnetic filters that are removably built up", again, permitting each of the single-unit magnetic filters to be sequentially removed, cleaned, and replaced.

Rather, this reference discloses that an environmental hormone can be adsorbed on hydrophobic magnetic particles having hydrophobic groups on the surfaces.

Therefore, for at least these reasons, Claims 1 and 2 are not anticipated by JP 2003-001243 A.

**V. Rejection of Claims 1 and 2 under 35 USC 102(b)**

The Examiner has rejected Claims 1 and 2 under 35 USC 102(b) as being anticipated by JP 2000-117142 A.

The amendments discussed above to independent Claims 1 and 2 also are believed to obviate the rejection over this reference, which does not teach "said magnetism adding means adds magnetism to the material by attaching the material to magnetism-seeded porous material or activated carbon used as a sorption agent by sorption of the material to be separated to the sorption agent", as recited in Claim 1. This reference further does not teach the recitations of Claim 2 of a "multiunit magnetic filter consisting of a plurality of single-unit magnetic filters that are removably built up", again, permitting each of the single-unit magnetic filters to be sequentially removed, cleaned, and replaced.

Rather, this reference discloses the oxidation of metal ions contained in a waste solution by the injection of ozone to form insoluble oxide particles, and the flocculation of the oxide particles.

Therefore, for at least these reasons, Claims 1 and 2 are not anticipated by JP 2000-117142 A.

**VI. Rejection of Claim 1 under 35 USC 102(b)**

The Examiner has rejected Claim 1 under 35 USC 102(b) as being anticipated by JP 07-108292 A.

The amendments discussed above to independent Claim 1 also are believed to obviate the rejection over this reference, which does not teach "a superconducting

magnetic separation means for separating the material from the wastewater by collecting the magnetism-added material through the magnetic field generated by a *solenoid-type superconducting magnet*", nor the feature that "said magnetism adding means adds magnetism to the material by attaching the material to magnetism-seeded porous material or activated carbon used as a sorption agent by sorption of the material to be separated to the sorption agent.", as recited in Claim 1.

Rather, this reference teaches that carriers "X" have a magnetic reactivity for recovery.

Therefore, for at least these reasons, Claim 1 are not anticipated by JP 07-108292 A.

## **VII. Claims 5 and 7 Define over the Prior Art**

Claims 5 has been amended, and Claim 7 added, to more particularly point out that which Applicants regard as their invention. Specifically, the sorption agent has been recited as comprising "a microorganism-adhered porous material (resp. activated carbon)".

None of the cited references recite the use of either of these materials as a magnetism-added sorption agent for making the material to be separated from wastewater susceptible to attraction to a superconducting magnet.

Therefore, Claims 5 and 7 are believed to patentably define over the cited art.

**VIII. New Claims 8 and 9**

New Claim 8, dependent from Claim 3, has been added to further define a particular aspect of the present invention, namely, the attachment of the sorption agent in a treatment tank, and the washing of the filters in the treatment tank for facilitating the return of the sorption agent directly to the treatment tank, which is neither taught nor suggested by the prior art.

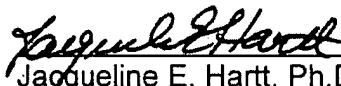
New independent Claim 9 addresses the feature of being able to backwash a second magnetic filter outside the magnetic bore, again enabled by the use of a plurality of magnetic filters, here movable within the bore of the superconducting magnet.

Claims 8 and 9 are believed to patentably define over the cited art.

## Conclusions

Applicants respectfully submit that the above amendments place this application in a condition for allowance, and passage to issue is respectfully solicited. Applicants and the undersigned would like to again thank the Examiner for his efforts in the examination of this application and for reconsideration of the claims as amended in light of the arguments presented. If the further prosecution of the application can be facilitated through telephone interview between the Examiner and the undersigned, the Examiner is requested to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,



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